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REPORT OF THE AD HOC INTER-AGENCY MEETING ON OUTER SPACE ACTIVITIES

(ITU Headquarters, Geneva, 11-13 October 1993)

I. INTRODUCTION

1. The Ad Hoc Inter-Agency Meeting on Outer Space Activities was held at the headquarters of the International Telecommunication Union (ITU), from 11 to 13 October 1993. G. Kovacs of ITU was elected Chairman. For the list of participants see annex I of the present report.

2. The Secretary-General of ITU, Pekka Tarjanne, opened the Meeting and welcomed the participants. He gave an overview of the regulatory and coordinating functions of ITU relating to the use of frequency spectrum by satellites focusing on its upcoming work programme on future satellite mobile communications systems, which would culminate in its World Radiocommunication Conference in 1995. The Conference would set much of the framework for the revision of radio regulations as well as for future satellite mobile communications, which he considered to be in the vanguard of the personal communications revolution, currently under way. Noting that space technology was central to global commerce and development, to peace-keeping and disaster mitigation, to science and exploration of the universe, he stated that the United Nations family had a unique responsibility to foster cooperation and coordination towards the exploration of space for the benefit of humankind.

3. The Meeting adopted the agenda contained in annex II of the present report.

II. SUBSTANTIVE QUESTIONS CONSIDERED AT THE MEETING

A. Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (agenda item 4)

B. Coordination of plans and programmes and exchange of views on current activities in the practical applications of space technology and related areas (agenda item 5)

1. Discussion of current and future plans of common interest, including consideration of the actual activities of United Nations organizations in the area of space science and technology and its applications as these relate to their mandated programmes (agenda item 5 (a))

4. It was decided to consider agenda items 4 and 5 (a) above together.

5. The Chief of the Office for Outer Space Affairs of the United Nations and the Expert on Space Applications informed the Meeting of the progress made by the Committee on the Peaceful Uses of Outer Space and its subcommittees in implementing the recommendations of the second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82), and other matters of inter-agency interest. He also reported on the details concerning the relocation of the Office for Outer Space Affairs to the United Nations Office at Vienna.

6. The representatives of other organizations reported on their current activities and plans for 1994, 1995 and future years, including their efforts in connection with the implementation of the recommendations of UNISPACE 82 (A/CONF.101/10). An exchange of views followed regarding how best to coordinate future activities to implement further the relevant recommendations of UNISPACE 82. The participants noted that the organizations represented at the Meeting were continuing the implementation of those recommendations relevant to them, mostly as part of ongoing programmes.

7. The representatives also noted with appreciation the strong emphasis given by the General Assembly in its resolution 37/90 and the Committee on the Peaceful Uses of Outer Space to the importance of cooperation within the United Nations system in implementing the recommendations of UNISPACE 82. They agreed to continue giving detailed consideration to those recommendations, particularly those relating to the specialized agencies and other bodies of the United Nations system, and to keep the Committee informed of the progress made in that area.

2. Consideration of matters to be included in the integrated report of the Secretary-General on the programmes of work of United Nations organizations (agenda item 5 (b))

8. The Meeting had before it the draft annual report of the Secretary-General entitled "Coordination of outer space activities within the United Nations system, programmes of work for 1994, 1995 and future years". That was the nineteenth report to be submitted to the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space, in which information from organizations within the United Nations system was presented in an integrated form, outlining planned activities by field of applications.

9. The participants noted that, in accordance with the agreement reached during its annual session in 1984 (see document ACC/1984/PG/8, para. 13), the draft report currently consisted of two sections: the first containing a summary of major planned activities and programmes, without reference to the organizations concerned, and the second containing a description of the future programmes of the individual organizations concerned, as in past reports.

10. The draft report contained information on activities and programmes involving the applications of space technology in the fields of remote sensing of the Earth, communications, meteorology, navigation, disaster management and other related fields. It highlighted activities carried out jointly by the organizations concerned through cooperative programmes, as well as those carried out separately within their areas of competence. Those activities ranged from assistance in education and training through fellowships, training workshops and seminars, to expert services and survey missions to the countries concerned, and the dissemination of information on the status of technology in each of the areas referred to above. The participants noted that the planned activities reflected part of the efforts of organizations to implement the recommendations of UNISPACE 82.

11. The draft report was discussed in detail, and a number of suggestions and comments were made. They would be incorporated in the final text, to be submitted by the Secretary-General to the Scientific and Technical Subcommittee at its thirty-first session, in 1994.

C. In-depth review of cooperation by organizations of the United Nations system in remote-sensing activities (agenda item 6)

12. In its consideration of the matter, the Meeting addressed a number of issues, including a brief evaluation of activities supported by the United Nations system in the developing countries. The Meeting focused on what the emphasis should be of such support in the future. Issues addressed in that context included: (a) conferences, workshops and seminars on the applications of new and advanced systems; (b) training and education programmes; (c) institution-building; (d) project formulation and execution; (e) exchange of information; and (f) other areas of inter-agency cooperation.

13. The Meeting agreed that remote sensing and Geographic Information System (GIS) technologies should be closely linked whenever appropriate. Such linking enabled integration of remote-sensing data with data from other sources, such as existing maps and ground surveys. It thus enhanced the scope of remote-sensing applications, their accuracy and cost benefits.

14. The Meeting reviewed a proposal introduced at its annual session in 1993 by the United Nations Educational, Scientific and Cultural Organization (UNESCO) to establish a series of satellite data centres (SDCs) (see annex III), and again expressed support for that concept, given that the proposal could be advanced without duplicating existing infrastructure at regional and national levels. The Meeting further expressed certain additional qualifications relating to the proposed SDCs. Those included the need to further elaborate on potential sources of funding, sources of data, types of user and data-distribution policy.

15. In that connection the Meeting had before it a working paper introduced at its annual session in 1992 by UNESCO on the question of the formatting of satellite data by the proposed SDCs. Having further discussed the working paper, the Meeting agreed to the text contained in annex III to the present report.

16. The Meeting discussed the matter of access to environmental data obtained by remote-sensing satellites and expressed its concern for the increasing tendency to restrict or qualify access to such data. The Meeting agreed that such access was a necessary condition to implementing both the recommendations of Agenda 21 adopted by the United Nations Conference on Environment and Development (UNCED) 1/ on sustainable development in developing countries and the current programmes sponsored by organizations of the United Nations system. Accordingly, the existing conditions under which data were provided to programmes sponsored by the organizations of the United Nations system should be maintained. With that in view, it was agreed that a set of requirements should be developed outlining the basis upon which data should be available to such programmes. The Meeting had had only a preliminary exchange of views at its annual session in 1992 on an informal paper outlining the requirements that had been put before it. The Meeting further discussed the question in the light of an informal paper circulated to it concerning the need to take full account of the principles relating to remote sensing of the Earth from outer space, adopted by the General Assembly in its resolution 41/65, and pointing out that the Inter-Agency Meeting should not attempt to adopt any formal document that might be seen as an attempt to revise those principles. The Meeting might, however, express its views with regard to a possible restriction of access to remote-sensing data, those data being essential for the success of the relevant United Nations programmes, and to what steps might be taken to overcome those difficulties.

17. The Meeting therefore agreed that the World Meteorological Organization (WMO) representative should review the draft paper in the light of the above-mentioned considerations and should prepare an appropriate paper for the next session of the Inter-Agency Meeting.

18. The Meeting noted with great interest the proposal to hold a World Conference on Natural Disaster Reduction (General Assembly resolution 46/149) to be organized by the Department of Humanitarian Affairs of the United Nations in connection with the International Decade for Natural Disaster Reduction (Assembly

resolution 44/236) and the Government of Japan, to be held from 23 to 27 May 1994 at Yokohama. The relevant agencies present at the Meeting would interact with the organizers of the Conference to highlight the applications of space technologies, such as remote sensing and satellite communications in disaster mitigation.

19. The Meeting commended the excellent work undertaken by the Economic and Social Commission for Asia and the Pacific/Regional Remote Sensing Programme (ESCAP/RRSP) in providing regional cooperation and coordination in the field of remote sensing and GIS. Noting the increasing use of remote sensing and GIS for sustainable development and the interest of the States of that region for continued promotion and coordination of regional remote-sensing activities, the Meeting expressed its strong support for strengthening the ESCAP/RRSP activities. In that connection, the Meeting expressed its support for the establishment of a permanent section on remote sensing and GIS in the ESCAP secretariat as recommended by the Committee on Environment and Sustainable Development (E/ESCAP/ESD/REP) at its first session, held at Bangkok, Thailand from 4 to 8 October 1993.

20. The Meeting also noted with great interest the preparations for the Asia-Pacific Ministerial Level Meeting on space applications for development in the ESCAP region, organized by ESCAP, to be held on 23 and 24 September 1994 at Beijing. It was further agreed that the preparatory work under way for the proposed meeting should take into account the ongoing work relating to the establishment of the proposed United Nations regional centre for space science and technology education in the ESCAP region.

21. The Meeting noted with interest the remote-sensing activities undertaken by the Economic Commission for Africa (ECA) including those carried out by the regional and subregional centres sponsored by ECA, and it expressed strong support for strengthening those activities.

22. The Meeting agreed that the discussions during the course of its consideration of the matters relating to remote sensing had identified several important points to be discussed at future meetings. It was noted that discussions should continue on those points and other selected issues because, unlike other emerging areas of technology, such as space manufacturing, the benefits of which were not yet apparent as far as developing countries were concerned, remote sensing was definitely an important tool for developing countries. Further, it was noted that, while many agencies and organizations of the United Nations system were interested in remote-sensing activities, including relevant early warning activities, there was no coordinated mechanism responsible for remote-sensing activities as a whole, apart from the Ad Hoc Inter-Agency Meeting on Outer Space Activities.

23. Therefore, the Meeting agreed that the in-depth review of the cooperation of organizations of the United Nations system in remote-sensing and related GIS activities should be continued at its next session. In that connection, the Meeting decided that the matters of inter-agency concern should be further reviewed at its next session.

III. FUTURE PROGRAMME OF WORK

24. The Ad Hoc Inter-Agency Meeting on Outer Space Activities, which provided an efficient platform and mechanism for organizations and agencies of the United Nations system to cooperate in promoting the peaceful uses of space technologies, could offer to serve as a coordinating body for inter-agency preparations of the proposed UNISPACE-3 conference.

25. The Meeting reiterated the importance of continuing its meetings on an annual basis, in order to better coordinate activities relating to outer space within the United Nations system. In that connection, the Meeting also noted that, owing to the work carried out by the Inter-Agency Meeting, the concerns expressed by

various intergovernmental committees, particularly the Committee on the Peaceful Uses of Outer Space, relating to the duplication of efforts in the work of various organizations of the United Nations system, had been satisfactorily dealt with and that those committees had positively commented on the work of the Inter-Agency Meeting in their recent reports.

26. The Meeting, noting the recommendation of the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space concerning the necessity of ensuring continuous and effective consultations and coordinations in the field of outer space activities among organizations within the United Nations system and the avoidance of duplication of activities (A/AC.105/543, para. 39), agreed that the present report should be brought to the attention of the Subcommittee in response.

27. The participants considered the need for further inter-agency consultation on, and coordination of, the activities and programmes of the organizations of the United Nations system, particularly in view of the implementation of the recommendations of UNISPACE 82 and the follow-up activities to be undertaken in response to Agenda 21. 1/ The participants therefore agreed that the next Ad Hoc Inter-Agency Meeting on Outer Space Activities should be held with the following major items on its provisional agenda:

1. Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space and review of preparations for UNISPACE-3.

2. Implementation of the recommendations of Agenda 21.

3. Coordination of plans and programmes and exchange of views on current activities in the practical application of space technology and related areas:

   (a) Discussion of current and future plans of common interest, including consideration of the actual activities of United Nations organizations in the area of space science and technology and its applications as they relate to their mandated programmes;

   (b) Consideration of matters to be included in the report of the Secretary-General on the programme of work of United Nations organizations.

4. In-depth review of the cooperation of United Nations organizations in remote-sensing and related GIS activities: remote-sensing data policy for requirements of the organizations of the United Nations system.

5. Coordination of follow-up activities of the organizations of the United Nations system for International Space Year 1992.

6. Other matters.

28. The participants agreed that they should continue their in-depth review of cooperation between United Nations organizations in some specific areas of space applications, such as communications, navigation, meteorology and related technology transfer, education and spin-off benefits, in order to ensure that the activities of the United Nations system in those areas were meaningfully integrated and the services rendered to Member States fully met their requirements in an efficient and cost-effective manner.

29. In view of the importance of the ongoing review process, the participants considered it essential that all organizations concerned, particularly those dealing with remote sensing, should attend the next Ad Hoc Inter-Agency Meeting on Outer Space Activities.

30. Because most of the participating organizations were based in Europe, and considering that the Office for Outer Space Affairs had been relocated to Vienna, the Meeting agreed that the next session of the Inter-Agency Meeting should be convened in Vienna. Considering that interested agencies would be represented at meetings of the Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Subcommittee, which henceforth would be convened in Vienna, it was agreed that the sessions of the Inter-Agency Meeting should be convened in conjunction with sessions of the Scientific and Technical Committee. Considering, however, that the time between the present meeting and the next session of the Scientific and Technical Meeting would not allow for sufficient preparations for the next Inter-Agency Meeting, it was agreed that the 1994 session of the Inter-Agency Meeting should be convened in conjunction with the Committee in June 1994 on the understanding that the 1995 session would be held in conjunction with that of the Scientific and Technical Subcommittee in February 1995. The above-mentioned agreement was without prejudice to any invitation by an interested agency to host a future session at its headquarters.

IV. OTHER MATTERS

31. During the course of the Meeting a technical presentation of the Global Emergency Observation and Warning (GEOWARN) Project was made by the representative of the European Space Agency (ESA) on behalf of the International Space University (ISU), elaborating on the results of a design project carried out by an international group of graduate students during the 1993 summer session of ISU, held at Huntsville, Alabama, United States of America, resulting in a system design proposal that was a contribution to the International Decade for Natural Disaster Reduction. The participants raised several issues, which were clarified by the ISU presenters, and the Meeting agreed that it was worthwhile to examine it closer. Accordingly, it was recommended that the design project should be submitted formally for comment and consideration by the specialized agencies of the United Nations.

32. The attention of the Meeting was drawn to the proposed exhibition to be housed at the United Nations Office at Vienna, Vienna International Centre (VIC), emphasizing international cooperation in space activities of Member States, specialized agencies of the United Nations system and other international organizations. The exhibition would begin in 1994. Representatives of several agencies indicated that they would be sending material for the exhibit and others were encouraged to do so. It was stated that the VIC was visited annually by over 75,000 visitors.

33. The Meeting expressed its appreciation to Z. D. Kalensky, Head of the FAO remote sensing centre, who was retiring from FAO, for the outstanding work carried out through FAO remote-sensing activities and for the services rendered over many years to the Inter-Agency Meeting, particularly during his chairmanship.

34. The Meeting expressed its gratitude to ITU for acting as host. The Meeting also expressed its appreciation to the Chairman as well as to the Office for Outer Space Affairs and its chief for the preparations and the secretariat support of the meetings, which contributed significantly to the strengthening of cooperation within the United Nations system.

Note

1/ Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992 (A/CONF.151/26/Rev.1 (Vol. I and Vol. I/Corr.1, Vol. II, Vol. III and Vol. III/Corr.1)) (United Nations publication, Sales No. E.93.1.8 and corrigenda), vol. I: Resolutions adopted by the Conference, resolution 1, annex II.

Annex I

LIST OF PARTICIPANTS

Chairman: G. KOVACS (International Telecommunication Union)

Secretary: N. JASENTULIYANA (United Nations)

United Nations	
Office for Outer Space Affairs	A. A. Abiodun
Economic Commission for Africa	O. Nino-Fluck
Economic and Social Commission for Asia and the Pacific	He Changchui
United Nations Development Programme	K. Von Vietinghoff
United Nations Environment Programme	R. G. Witt
Specialized agencies	
Food and Agriculture Organization of the United Nations	Z. D. Kalensky
United Nations Educational, Scientific and Cultural Organization	R. Missotten
United Nations Industrial Development Programme	A. Akpa
World Health Organization	Kh. Shibib
World Meteorological Organization	E. Sarukhanian J. M. Rainer
International Telecommunication Union	H. Meyerhoff A. Nalbandian
Other organizations	
International Space University (For technical presentation only.)	E. Slachmylders (ESA) R. Bunce (ISU)

Annex II

AGENDA

1. Opening of the Meeting.

2. Election of the Chairman of the Meeting.

3. Adoption of the agenda.

4. Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space.

5. Coordination of plans and programmes and exchange of views on current activities in the practical applications of space technology and related areas:

   (a) Discussion of current and future plans of common interest, including consideration of the actual activities of United Nations organizations in the area of space science and technology and its applications as they relate to their mandated programmes;

      (i) United Nations Space Applications Programmes;
      (ii) Programmes of the other organizations;

   (b) Consideration of matters to be included in the integrated report of the Secretary-General on the programmes of work of United Nations organizations.

6. In-depth review of the cooperation of organizations in the United Nations system in remote-sensing activities.

7. Review and coordination of follow-up activities of the organizations of the United Nations system on International Space Year, 1992.

8. Other matters:

   (a) Future meetings;

   (b) Others;

      (i) Third UNISPACE conference;
      (ii) Additional matters.

Annex III

FORMATTING OF SATELLITE DATA BY THE PROPOSED SATELLITE DATA CENTRES

The available data should be in "user-friendly" format(s) in two aspects:

The first concern is to make available to potential users the information concerning existing satellite data sets, be it at a continental, regional, national or subnational level. This means providing users with "meta-data", presumably in a database, so that they can examine the relevant information on-line in a sort of electronic data catalogue.

The second concern is to provide the actual satellite data in a form which is readily usable. This implies a certain amount of re-formatting by the proposed "Satellite Data Centres" (SDCs), before the data can be passed on to potential users. Satellite data could also be geo-referenced for further use within a geographic information system (GIS).

The goals mentioned above will involve significant work of ever-increasing magnitude. The following is a list of the simplest to the most difficult tasks implied by the above.

1. Entry of satellite data descriptive attributes to:

   (a) Some list (analogue form, as a minimum);

   (b) Electronic catalogue;

   (c) Database format.

2. Pre-processing of satellite data:

   (a) Re-formatting from original tapes to other medium or media (hard disk, diskette, CD-ROM etc.);

   (b) Re-formatting to "simpler" formats for users; e.g. so-called flat files and/or data subsets;

   (c) Application of specific algorithms to original, raw parameters (veg. index) etc.

3. Geo-coding of satellite data:

   (a) Geometric corrections;

   (b) Precision geo-referencing to some agreed upon coordinate system; e.g. latitude/longitude.

4. Entry of satellite data to GIS.